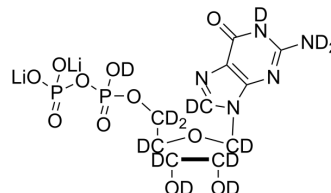


## Guanosine 5'-diphosphate-d<sup>13</sup> dilithium

<b>Cat. No.:</b>	HY-113066S2
<b>Molecular Formula:</b>	C <sub>10</sub> D <sub>13</sub> Li <sub>2</sub> N <sub>5</sub> O <sub>11</sub> P <sub>2</sub>
<b>Molecular Weight:</b>	468.15
<b>Target:</b>	Isotope-Labeled Compounds; Endogenous Metabolite; Potassium Channel
<b>Pathway:</b>	Others; Metabolic Enzyme/Protease; Membrane Transporter/Ion Channel
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Guanosine 5'-diphosphate-d <sub>13</sub> (GDP-d <sub>13</sub> ) dilithium is deuterium labeled Guanosine 5'-diphosphate (HY-113066). Guanosine 5'-diphosphate (GDP) is a nucleoside diphosphate that activates adenosine 5'-triphosphate-sensitive K <sup>+</sup> channel. Guanosine 5'-diphosphate is a potential iron mobilizer, which prevents the hepcidin-ferroportin interaction and modulates the interleukin-6 (IL-6)/stat-3 pathway. Guanosine 5'-diphosphate can be used in the research of inflammation, such as anemia of inflammation (AI).
<b>In Vitro</b>	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019 Feb;53(2):211-216.
- [2]. S Kajioka, et al. Guanosine diphosphate activates an adenosine 5'-triphosphate-sensitive K<sup>+</sup> channel in the rabbit portal vein. *J Physiol.* 1991 Dec;444:397-418.
- [3]. Angmo S, et al. Identification of Guanosine 5'-diphosphate as Potential Iron Mobilizer: Preventing the Hepcidin-Ferroportin Interaction and Modulating the Interleukin-6/Stat-3 Pathway. *Sci Rep.* 2017 Jan 5;7:40097.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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